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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,682	07/21/2003	Joseph A. King	5783	5313

7590 12/23/2004

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EXAMINER
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TSOY, ELENA

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/623,682	<b>Applicant(s)</b> KING ET AL.	
	<b>Examiner</b> Elena Tsoy	<b>Art Unit</b> 1762	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-20 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-10 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

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***Response to Amendment***

1. Amendment filed on November 15, 2004 has been entered. Claims 8-20 are pending in the application. Claims 11, 13-20 are withdrawn from consideration as directed to a non-elected invention.

***Election/Restrictions***

2. Applicant's election of Claims 8-10 and species of Claim 12 in the reply filed on November 15, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

***Specification***

3. Objection to the disclosure because of the informalities has been withdrawn due to amendment.

***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. **Claims 8, 9** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5, 7, 8 of U.S. Patent No. 6,446,814 for the

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reasons of record as set forth in Paragraph No. 9 of the Office Action mailed on June 30, 2004 because drying the adhesive with the applied metal ion yielding material would secure the metal ion yielding material to the web.

6. **Claims 10, 12** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5, 7, 8 of U.S. Patent No. 6,446,814 in view of Rosenblatt (US 6,365,169) for the reasons of record as set forth in Paragraph No. 10 of the Office Action mailed on June 30, 2004.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 8, 9** are rejected under 35 U.S.C. 102(b) as being anticipated by KR 8902848 for the reasons of record as set forth in Paragraph No. 12 of the Office Action mailed on June 30, 2004 because the use of the adhesive on the inner side only implies that adhesive was allowed to dry and secure the silver added active carbon because drying the adhesive with the applied metal ion yielding material would secure the metal ion yielding material to the web.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over KR

8902848 in view of Rosenblatt (US 6,365,169) for the reasons of record as set forth in Paragraph

No. 14 of the Office Action mailed on June 30, 2004.

### *Response to Arguments*

11. Applicants' arguments filed November 15, 2004 have been fully considered but they are not persuasive.

(A) Applicants argue that claims 8 and 9 are patentably distinct from claims of Patent '814 because that the web of material disclosed in Applicant's claims 8 and 9 is different from the network of the filter medium claimed in claim 1 of the '814 reference. It is noted that the web of material of claims 8 and 9 can be formed into the network of filter medium of the '814 reference. However, the network of filter medium of the '814 reference does not necessarily cover the web of material of claims 8 and 9.

The Examiner respectfully disagrees with this argument. The specification as filed does not define a term "web". Accordingly, the term is given the broadest reasonable interpretation consistent with the specification. According to Merriam-Webster's Dictionary, "web" includes 2 a "cobweb", b "network of silken thread spun by the larvae" or 5 "something resembling a web". Therefore, the network of filter medium of the '814 reference does cover the web of material of claims 8 and 9.

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(B) Applicants argue that claims 10 and 12 are patentably distinct from claims of Patent '814 in view of Rosenblatt because Applicant's independent method claim 10 teaches the use of a PVA adhesive in making an article for insitu water treatment. It is noted that Rosenblatt teaches that adhesives can be made from a PVA resin(column 8, line 2) and that a PVA iodine complex can be used in making water filters (column 8, line 11). It is submitted however that Rosenblatt does not teach the use of an adhesive formed from PVA without iodine in making an article for insitu water treatment as called for in Applicant's independent method claim 10.

The Examiner respectfully disagrees with this argument. Rosenblatt teaches that PVA resins are used to coat many types of fibers, **bonding well** to their surfaces to aid in their processing, and PVA suppliers make *special grades* of PVA to fulfill these needs. These specialty grades of PVA can be adapted to coat many types of fibrous and porous matrixes, e.g. polyesters, metal screens, fiberglass, and urethane foam filters, non-woven cloths, and woven cloths, and when cured, give all these base matrixes iodine complexing potential to produce, e.g. antimicrobial versions of water filters, antifungal and antimicrobial substrates in air conditioning systems. See column 8, lines 1-12. In other words, PVA resins **bond well** to many types of fibrous and porous matrixes, e.g. polyesters, metal screens, fiberglass, and urethane foam filters, non-woven cloths, and woven cloths, and have iodine complexing **potential** to produce iodine versions of water filters. Therefore, one of ordinary skill in the art at would have reasonable expectation of success in using PVA (with or *without* iodine) as an adhesive of Patent '814 because Rosenblatt teaches that PVA bonds well to any kind of materials and can be used in water filters.

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(C) Applicants argue that the reference KR 8902848 does not teach the securement of the silver-added active carbon and untreated carbon to the permeable nonwoven fabrics by allowing the adhesive to dry. The reference KR 8902848 instead teaches "... heat-sealing the nonwoven fabrics" to maintain the filled silver-added active carbon and untreated carbon between the two nonwoven fabrics.

The Examiner respectfully disagrees with this argument. If the filled silver-added active carbon and untreated carbon are maintained between the two nonwoven fabrics only by "heat-sealing", adhesives would not been applied. Clearly, at least a surface portion of the first layer of the filled silver-added active carbon is held in place by adhesive.

### ***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (571) 272-1429. The examiner can normally be reached on Mo-Thur. 9:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ELENA TSOY  
PRIMARY EXAMINER

Elena Tsoy  
Examiner  
Art Unit 1762

*E Tsoy*

December 21, 2004